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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/724,811 | 11/28/2000 | Van Oler | PALM-3525.US.P | 8225 |

7590 06/19/2003
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EXAMINER

BLACKMAN, ANTHONY J

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2676

DATE MAILED: 06/19/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------|----------------------------|--|
| Office Action Summary | Application No. 09/724,811 | Applicant(s) OLER ET AL | |
| | Examiner ANTHONY J BLACKMAN | Art Unit 2676 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 2 discloses a "step f" that is not present in claim 1 and for that reason does not meet requirements under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Because Claims 3-9 are dependent upon claim 1, they are also rejected. However, examiner will interpret claims 1 and 2 as best understood in the following office action.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-4 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by MIZUNO, US Patent No. 6,313,821.

5. Consider claim 1. MIZUNO disclose in an electronic device having a display and a processor (figure 1, elements 4 and 6), a method for providing contrast adjustment for said display (figure 1) comprising the steps of:

a) receiving a contrast setting that is user defined column 8, lines 15-17, figure 8, elements 8a and 8b);

b) generating signals representative of the ambient temperature of said display over time (figure 4, column 3, lines 25-28, column 6, and lines 13-65);

c) sampling said signals and converting said signals into current temperature values (column 6, lines 22-28);

d) based on said contrast setting and said current temperature values (figure 1, element 2, abstract, lines 1-18, column 2, lines 13-37, 40-54, column 3, lines 58-63), contrast adjustment voltage signal for maintaining said contrast setting (figure 1, element 2, abstract, lines 1-18, column 2, lines 13-37, 40-54, column 3, lines 58-63), wherein said steps c) and d) are performed by said processor (figure 1, element 2, abstract, lines 1-18, column 2, lines 13-37, 40-54, column 3, lines 58-63), and

e) automatically adjusting contrast of said display by applying said contrast adjustment voltage signal to said display (column 6, lines 8-12, 29-33); and

6. Consider claim 2. MIZUNO meet limitations of claim 1, and further comprising the step of f) repeating steps b) - d) ((figure 1, element 2, abstract, lines 1-18, column 2, lines 13-37, 40-54, column 3, lines 58-63).
7. Consider claim 3. MIZUNO disclose a method as described in Claim 1, including wherein said step b) comprises the step of using a temperature sensitive diode circuit to generate a voltage signal based on said ambient temperature (figure 1, element 1, column 1, lines 27-35, column 3, lines 58-61, column 4, lines 4-7).
8. Consider claim 4. MIZUNO disclose a method as described in claim 3, in addition to wherein step b) further comprising the step of using an analog to digital converter said voltage signal into a digital value (figure 1, element 5, column 3, line 51 to column 4, line 3).
9. Consider claim 7. MIZUNO disclose a method as described in claim 1, including wherein step d) comprises the step of indexing a look-up table with said contrast setting and said current temperature values to compute and contrast setting and said current temperature values to compute adjustment voltage signal (column 1, lines 40-48).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over MIZUNO, US Patent No. 6,313,821 in view of NASH, US Patent No. 5,029,982. MIZUNO does not expressly teach a method as described in claim 1 wherein said step d) comprises the step of indexing a look-up table with said contrast setting and said current temperature values to compute said contrast adjustment voltage signal.

NASH suggests a method as described in claim 1 wherein said step d) comprises the step of indexing a look-up table with said contrast setting and said current temperature values to compute said contrast adjustment voltage signal (column 2, lines 37-53).

It would have been obvious to one skilled in the art at the time of the invention to utilize the teachings of the portable system that provides voltage correction to compensate for changes of contrast due to variations in ambient temperature (figure 30), including the means of a look-up table, as well as the means for mathematical functions are well known in the art as demonstrated by NASH to modify the image display device that automatically adjusts contrast of a display image according to variations in temperature taught by MIZUNO because both inventions share similar technological environments related to automatically adjusting contrast of display images.

12. Claims 6 and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over MIZUNO, US Patent No. 6,313,821 in view of BURTON, US Patent No. 6,496,177.

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13. Consider claim 6. MIZUNO disclose a method as described in claim 1, however, does not expressly teach the following limitation wherein said step d) comprises the step of inputting said contrast setting and said current temperature values to a formula to compute said adjustment voltage signal. BURTON suggests that said step d) comprises the step of inputting said contrast setting and said current temperature values to a formula to compute said adjustment voltage signal (column 13, lines 36-50). It would have been obvious to one skilled in the art at the time of the invention to utilize the teachings directed toward implementation of software, hardware, firmware and any combination thereof for controlling LCD display contrast (column 17, lines 7-18) in detecting, measuring and controlling ambient temperature to the LCD (column 16, lines 54-65) of BURTON combined with the image display device that automatically adjusts contrast of a display image according to variations in temperature taught by MIZUNO because both inventions share similar technological environments related to automatically adjusting contrast of display images.

14. Consider claim 8. MIZUNO meets limitations of claim 1, however, does not expressly teach the following claim limitations wherein said electronic device is a portable hand-held computer system. BURTON teaches said electronic device is a portable hand-held computer system (column 1, line 62-column2, line 20).

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15. Consider claim 9. MIZUNO meets limitations of claim 1, however, does not expressly teach the following limitation wherein step a) comprises the step of receiving said contrast setting via a software graphical user interface (column 1, lines 36-50).

16. Claims 10-11 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over CATO US Patent No. 6,433,769 in view of MIZUNO US Patent No. 6,313,821.

17. Consider claims 10 and 16. CATO disclose the means of an electronic device/palm-top computer comprising:

A processor coupled to a bus (figure 4, element 410);

a display coupled to said bus and responsive to a contrast adjustment signal (figure 4, element 436, column 1, lines 5-10, 60-column 2, line 5); however,

CATO does not disclose the following claim limitations a temperature sensing circuit for generating signals representative of the ambient temperature of said display over time, and wherein said processor automatically compensates display contrast based on said ambient temperature by performing the steps of: a) receiving a contrast setting that is user defined; b) sampling said signals and converting said signals into current temperature values; c) based on said contrast setting and said current temperature values, computing a contrast adjustment voltage signal for maintaining said contrast setting; and d) automatically adjusting contrast of said display by applying said contrast adjustment voltage signal to said display. Conversely, MIZUNO teach a temperature

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sensing circuit for generating signals representative of the ambient temperature of said display over time (figure 4, column 3, lines 25-28, column 6, lines 13-65), and wherein said processor automatically compensates display contrast based on said ambient temperature by performing the steps of: a) receiving a contrast setting that is user defined (column 6, lines 8-12, 29-33);

(a) receiving a contrast setting that is user defined (column 8, lines 15-17, figure 8, elements 8a and 8b);

b) sampling said signals and converting said signals into current temperature values (column 6, lines 22-28),

c) based on said contrast setting and said current temperature values (figure 4, column 3, lines 25-28, column 6, lines 13-65), computing a contrast adjustment voltage signal for maintaining said contrast setting (figure 1, element 2, abstract, lines 1-18, column 2, lines 13-37, 40-54, column 3, lines 58-63); and

d) automatically adjusting contrast of said display by applying said contrast adjustment voltage signal to said display (column 6, lines 8-12 and 29-33). It would have been obvious to one skilled in the art at the time of the invention to utilize the automatically adjusting contrast of a display image via temperature sensor controlling temperature variation of MIZUNO with the LCD device temperature control system of CATO because both inventions share similar technological environments.

18. Consider claims 11 and 17. CATO as modified meet limitations of claims 10 and 16. However, MIZUNO disclose the following limitations for claims 11 and 17 a device

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as described in Claim 10 wherein said temperature sensing circuit comprises: a temperature sensitive diode circuit for generating a voltage signal based on said ambient temperature (figure 1, element 1, column 1 lines 27-35, column 3, lines 58-61, column 4, lines 4-7).

19. Claims 12 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over CATO US Patent No. 6,433,769 in view of MIZUNO US Patent No. 6,313,821 and further in view of NASH US Patent No. 5,029,982.

20. Consider claims 12 and 18. CATO as modified meets claim limitations of claims 10 and 16, however, does not expressly teach limitations of claims 12 and 18. NASH suggests wherein said step c) comprises the step of indexing a look-up table with said contrast setting and said current temperature values to compute said contrast adjustment voltage signal (column 2, lines 37-53). It would have been obvious to one skilled in the art at the time of the invention to utilize the teachings of the portable system that provides voltage correction to compensate for changes of contrast due to variations in ambient temperature (figure 30), including the means of a look-up table, as well as the means for mathematical functions are well known in the art as demonstrated by NASH to modify the image display device that automatically adjusts contrast of a display image according to variations in temperature taught by MIZUNO because both inventions share similar technological environments related to automatically adjusting contrast of display images. Further, it would have been obvious to one skilled in the art

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at the time of the invention to utilize the automatically adjusting contrast of a display image via temperature sensor controlling temperature variation of the modified NASH utilizing the LCD device temperature control system of CATO as modified because both inventions share similar technological environments.

21. Claims 13-15 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over CATO US Patent No. 6,433,769 in view of MIZUNO US Patent No. 6,313,821 and further in view of BURTON US Patent No. 6,496,177.

22. Consider claims 13 and 19 CATO as modified meet claim limitations for claims 10 and 16, however does not meet claim limitations for claims 13 and 19. However, BURTON teach wherein said step c) comprises:

The step of inputting said contrast setting and said current temperature values to a formula to compute said contrast adjustment voltage signal (column 13, lines 36-50).

It would have been obvious to one skilled in the art at the time of the invention to utilize the teachings directed toward implementation of software, hardware, firmware and any combination thereof for controlling LCD display contrast (column 17, lines 7-18) in detecting, measuring and controlling ambient temperature to the LCD (column 16, lines 54-65) of BURTON combined with the image display device that automatically adjusts contrast of a display image according to variations in temperature taught by CATO as modified because both inventions share similar technological environments related to automatically adjusting contrast of display images.

23. Consider claim 15. CATO as modified meets limitations of claim 10, however, do not meet limitations for claim 15? BURTON teaches a method wherein said electronic device is a portable hand-held computer system (column 1, line 62-column 2, line 20).

24. Consider claims 14 and 20. CATO as modified meet limitations for claims 10 and 16. MIZUNO teach the following limitation wherein said display screen is a liquid crystal display (LCD) (column 1, lines 40-48). However, CATO as modified does not teach wherein said electronic device is a portable hand-held computer system. BURTON teaches that said electronic device is a portable hand-held computer system (column 1, lines 62-column 2, line 20).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANTHONY J BLACKMAN whose telephone number is 703-305-0833. The examiner can normally be reached on FLEX SCHEDULE.

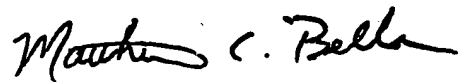
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MATTHEW BELLA can be reached on 703-308-6829. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-746-5731 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

ANTHONY J BLACKMAN
Examiner
Art Unit 2676

June 13, 2003

A handwritten signature in black ink, appearing to read "Matthew C. Bella". The signature is fluid and cursive, with the first name "Matthew" being more prominent than the last name "Bella".

MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600